

IN THE CLAIMS

1-39 Cancelled

40. (New) A piston-chamber combination comprising an elongate chamber which is bounded by an inner chamber wall and comprising a piston means in said chamber to be sealingly movable relative to said chamber at least between first and second longitudinal positions of said chamber, said chamber having cross-sections of different cross-sectional areas at the first and second longitudinal positions of said chamber and at least substantially continuously differing cross-sectional areas at intermediate longitudinal positions between the first and second longitudinal positions thereof, the cross-sectional area at the first longitudinal position being larger than the cross-sectional area at the second longitudinal position, said piston means being designed to adapt itself and said sealing means to said different cross-sectional areas of said chamber during the relative movements of said piston means from the first longitudinal position through said intermediate longitudinal positions to the second longitudinal position of said chamber, wherein the piston means comprises:

- a plurality of at least substantially stiff support members rotatably fastened to a common member,
- elastically deformable means, supported by said supporting members, for sealing against the inner wall of the chamber said support members being rotatable between 10° and 40° relative to the longitudinal axis of the chamber.

41. (New) A combination according to claim 40, wherein the support members are rotatable so as to be at least approximately parallel to the longitudinal axis.

42. (New) A combination according to claim 40, wherein the common member is attached to a handle for use by an operator, and wherein the support members extend, in the chamber, in a direction relatively away from said handle.

43. (New) A combination according to claim 40, further comprising means for biasing the support members against the inner wall of the chamber.

44. (New) A piston-chamber combination comprising an elongate chamber which is bounded by an inner chamber wall and comprising a piston means in said chamber to be sealingly movable relative to said chamber at least between first and second longitudinal positions of said chamber, said chamber having cross-sections of different cross-sectional areas at the first and second longitudinal positions of said chamber and at least substantially continuously differing cross-sectional areas at intermediate longitudinal positions between the first and second longitudinal positions thereof, the cross-sectional area at the first longitudinal position being larger than the cross-sectional area at the second longitudinal position, said piston means being designed to adapt itself and said sealing means to said different cross-sectional areas of said chamber during the relative movements of said piston means from the first longitudinal position through said intermediate longitudinal positions to the second longitudinal position of said chamber, wherein the piston means comprises:

- an elastically deformable material being adapted to adapt itself to the different cross-sectional areas of the chamber between the first and second longitudinal positions thereof, and
- a coiled flat spring having a central axis at least substantially along the longitudinal axis of the chamber, the spring being positioned adjacently to the elastically deformable material so as to support the elastically deformable material in the longitudinal direction.

45. (New) A combination according to claim 44, wherein the piston means further comprises a number of flat supporting means positioned between the elastically deformable material and the spring, the supporting means being rotatable along an interface between the spring and the elastically deformable material.

46. (New) A combination according to claim 45, wherein the supporting means are adapted to rotate from a first position to a second position wherein, in the first position, an outer boundary thereof may be comprised within the cross-sectional area of the chamber in the first longitudinal position thereof and wherein, in the second position, an outer boundary thereof may be

comprised within the cross-sectional area of the chamber in the second longitudinal position thereof.

47. (New) A piston-chamber combination comprising an elongate chamber which is bounded by an inner chamber wall and comprising a piston means in said chamber to be sealingly movable relative to said chamber at least between first and second longitudinal positions of said chamber, said chamber having cross-sections of different cross-sectional areas at the first and second longitudinal positions of said chamber and at least substantially continuously differing cross-sectional areas at intermediate longitudinal positions between the first and second longitudinal positions thereof, the cross-sectional area at the first longitudinal position being larger than the cross-sectional area at the second longitudinal position, said piston means being designed to adapt itself and said sealing means to said different cross-sectional areas of said chamber during the relative movements of said piston means from the first longitudinal position through said intermediate longitudinal positions to the second longitudinal position of said chamber, comprising a hose to form the piston means, the hose, when being positioned at the first longitudinal position of the chamber, having substantially the shape of a cone with the larger diameter thereof facing the second longitudinal position of the chamber.

48. (New) A combination according to claim 47, wherein the hose comprising reinforcement windings having a braid angle which is different from $54^{\circ}44'$.

49. (New) A piston-chamber combination comprising an elongate chamber which is bounded by an inner chamber wall and comprising a piston means in said chamber to be sealingly movable relative to said chamber at least between first and second longitudinal positions of said chamber, said chamber having cross-sections of different cross-sectional areas at the first and second longitudinal positions of said chamber and at least substantially continuously differing cross-sectional areas at intermediate longitudinal positions between the first and second longitudinal positions thereof, the cross-sectional area at the first longitudinal position being larger than the cross-sectional area at the second longitudinal position, said piston means being designed to adapt itself and said sealing means to said different cross-sectional areas of said chamber during the relative movements of said piston means from the first

longitudinal position through said intermediate longitudinal positions to the second longitudinal position of said chamber, wherein the cross-sections of the different cross-sectional areas have different cross-sectional shapes, the change in cross-sectional shape of the chamber being at least substantially continuous between the first and second longitudinal positions of the chamber, wherein the piston means is further designed to adapt itself and the sealing means to the different cross-sectional shapes.

50. (New) A combination according to claim 49, wherein the cross-sectional shape of the chamber at the first longitudinal position thereof is at least substantially circular and wherein the cross-sectional shape of the chamber at the second longitudinal position thereof is elongate, such as oval, having a first dimension being at least 2, such as at least 3, preferably at least 4 times a dimension at an angle to the first dimension.

51. (New) A combination according to claim 49, wherein the cross-sectional shape of the chamber at the first longitudinal position thereof is at least substantially circular and wherein the cross-sectional shape of the chamber at the second longitudinal position thereof comprises two or more at least substantially elongate, such as lobe-shaped, parts.

52. (New) A combination according to claim 49, wherein a first circumferential length of the cross-sectional shape of the cylinder at the first longitudinal position thereof amounts to 80-120%, such as 85-115%, preferably 90-110, such as 95-105, preferably 98-102%, of a second circumferential length of the cross-sectional shape of the chamber at the second longitudinal position thereof.

53. (New) A combination according to claim 52, wherein the first and second circumferential lengths are at least substantially identical.

54. (New) The use of a device comprising a combination of a piston and a chamber in a pump according to claim 40.

55. (New) The use of a device comprising a combination of a piston and a chamber in a shock absorber according to claim 40.

56. (New) The use of a device comprising a combination of a piston and a chamber in an actuator according to claim 40.

57. (New) The use of a device comprising a combination of a piston and a chamber in a motor according to claim 40.

58. (New) A pump **wherein** it comprises a device comprising a combination of a piston and a chamber according to claim 40.

59. (New) A shock absorber **wherein** it comprises a device comprising a combination of a piston and a chamber according to claim 40.

60. (New) An actuator **wherein** it comprises a device comprising a combination of a piston and a chamber according to claim 40.

61. (New) A motor **wherein** it comprises a device comprising a combination of a piston and a chamber according to claim 40.

62. (New) A combination according to claim 42, further comprising means for biasing the support members against the inner wall of the chamber.

63. (New) A combination according to claim 50, wherein the cross-sectional shape of the chamber at the first longitudinal position thereof is at least substantially circular and wherein the cross-sectional shape of the chamber at the second longitudinal position thereof comprises two or more at least substantially elongate, such as lobe-shaped, parts.

64. (New) A combination according to claim 50, wherein a first circumferential length of the cross-sectional shape of the cylinder at the first longitudinal position thereof amounts to 80-

120%, such as 85-115%, preferably 90-110, such as 95-105, preferably 98-102%, of a second circumferential length of the cross-sectional shape of the chamber at the second longitudinal position thereof.

65. (New) A combination according to claim 51, wherein a first circumferential length of the cross-sectional shape of the cylinder at the first longitudinal position thereof amounts to 80-120%, such as 85-115%, preferably 90-110, such as 95-105, preferably 98-102%, of a second circumferential length of the cross-sectional shape of the chamber at the second longitudinal position thereof.
